

52



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,040	02/14/2002	Steven Tzu-Yun Lin	0941-0410P-SP	7586
2292	7590	11/18/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			CONTINO, PAUL F	
			ART UNIT	PAPER NUMBER
			2114	
DATE MAILED: 11/18/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

sk

Office Action Summary

Application No.

10/074,040

Applicant(s)

LIN ET AL.

Examiner

Paul Contino

Art Unit

2114

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-12 and 14 is/are rejected.
- 7) ☒ Claim(s) 5 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-4, 6-12, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Barbas et al. (U.S. PGPub No. 2002/0097672 A1).

As in claim 1, Barbas et al. discloses a method of recovering from malfunctions in a first agent module that is installed in a modular network device having a plurality of network interface modules housed in a chassis where the first agent module performs management and system controller functions, the method comprising the steps of (Fig. 1 and 2, where the modules are RCP/BHC pairs 102a,b and 104a,b connected to one another through common I/O card 103. As disclosed in paragraphs 0025 and 0084, it is interpreted that common I/O card 103 acts as a medium to transmit status signals between RCP/BHC pairs, without loss of intended signal meaning, instruction, and/or functionality):

Art Unit: 2114

installing a second agent module in the chassis and asserting a present signal of the second agent to notify the first agent module that the second agent module is present (paragraph 0049 and paragraph 0058);

determining, at the second agent module, if the first agent module is installed when a present signal (paragraph 0058), a ready signal (paragraph 0052 and 0069) and a privilege signal (paragraph 0051, 0053 and 0072) of the first agent module are asserted;

synchronizing configuration information of the network interface modules from the first agent module to the second agent module after a ready signal of the second agent module is asserted (paragraph 0093);

periodically sending a message, from the first agent module to the second agent module, indicating that the first agent module has not failed (paragraph 0072 and 0093);

detecting, at the second agent module, that the malfunctions in the first agent module occur if the second agent module cannot receive the message within a predetermined time interval (paragraph 0085);

rebooting the modular network device including the first agent module and the second agent module (Fig. 7 #600, 700, 702; paragraph 0038, 0039, 0075, and 0089); and

performing the management and system controller functions by the second agent module using the synchronized configuration information (paragraph 0095).

As in claim 2, Barbas et al. discloses re-synchronizing the second agent module to the first agent module when any configuration information is modified on the first agent module (paragraph 0093).

Art Unit: 2114

As in claim 3, Barbas et al. discloses asserting the ready signal of the second agent module after the rebooting step to indicate that the second agent module has completed an initialization process (paragraph 0076); and

asserting a privilege signal of the second agent module to indicate that the second agent module has taken over the management and system controller functions previously performed by the first agent module (paragraph 0078 and 0079).

As in claim 4, Barbas et al. discloses if the first agent module recovers to a normal operating condition after the rebooting step, performing the steps of:

de-asserting the privilege signal of the first agent module (paragraph 0082); and

determining, at the first agent module, if the second agent module has taken over the management and system controller functions when the present, ready and privilege signals of the second agent module are asserted (paragraph 0079 and 0080).

As in claim 6, Barbas et al. discloses the second agent module is installed when the modular network device is powered on (paragraph 0025 where a Bridge Hotswap Card is inherently able to be installed while the “network device is powered on”).

As in claim 7, Barbas et al. discloses the first agent and the second agent modules have substantially the same arrangement (Fig. 1 and 2; paragraph 0025).

As in claim 8, Barbas et al. discloses a method of establishing redundant management and system controller functions in a modular network device having a

Art Unit: 2114

plurality of network interface modules housed in a chassis, comprising the steps of (Fig. 1 and 2, where the modules are RCP/BHC pairs 102a,b and 104a,b connected to one another through common I/O card 103. As disclosed in paragraphs 0025 and 0084, it is interpreted that common I/O card 103 acts as a medium to transmit status signals between RCP/BHC pairs, without loss of intended signal meaning, instruction, and/or functionality):

booting the modular network device with a first agent module installed in a first slot of the chassis and a second agent module installed in a second slot of the chassis (paragraph 0075 and 0076);

determining if the first agent module is a primary agent module and the second agent module is a backup agent module when a privilege signal of the first agent module is asserted (paragraph 0079 and 0080) and a privilege signal of the second agent module is de-asserted (paragraph 0082);

synchronizing configuration information of the network interface modules from the first agent module to the second agent module after a ready signal of the first agent module and a ready signal of the second agent module are both asserted (paragraph 0093);

periodically sending a message, from the first agent module to the second agent module, indicating that the first agent module has not failed (paragraph 0072 and 0093);

detecting, at the second agent module, that the first agent module has failed if the second agent module cannot receive the message within a predetermined time interval (paragraph 0085);

Art Unit: 2114

rebooting the modular network device including the first agent module and the second agent module (Fig. 7 #600, 700, 702; paragraph 0038, 0039, 0075, and 0089); and performing the management and system controller functions by the second agent module using the synchronized configuration information (paragraph 0095).

As in claim 9, Barbas et al. discloses respectively asserting, when the modular network device is powered up, a present signal of the first agent module and a present signal of the second agent module to notify both agent modules that the first and the second agent modules are installed (paragraph 0078 and 0079);

asserting the privilege signal of the first agent module to indicate that the first agent module in the first slot serves as the primary agent module paragraph 0079);

detecting, at the second agent module, that the privilege signal of the first agent module is asserted (paragraph 0078);

holding the privilege signal of the second agent module de-asserted (paragraph 0082); and

individually asserting the ready signal of the first agent module and the ready signal of the second agent module when the first and the second agent module respectively complete an initialization process (paragraph 0080, where it is implied the Watchdog_Timer signal [ready signal] is asserted unless the integrity tests have failed).

As in claim 10, Barbas et al. discloses re-synchronizing the second agent module to the first agent module when any configuration information is modified on the first agent module (paragraph 0093).

As in claim 11, Barbas et al. discloses asserting the ready signal of the second agent module after the rebooting step in order to indicate that the second agent module has completed the initialization process (paragraph 0076); and

asserting the privilege signal of the second agent module to indicate that the second agent module has taken over the management and system controller functions previously performed by the first agent module (paragraph 0078 and 0079).

As in claim 12, Barbas et al. discloses if the first agent module recovers to a normal operating condition after the rebooting step, performing the steps of:

de-asserting the privilege signal of the first agent module (paragraph 0082); and

determining, at the first agent module, if the second agent module has taken over the management and system controller functions when the present, the ready and the privilege signals of the second agent module are asserted (paragraph 0079 and 0080).

As in claim 14, Barbas et al. discloses the first agent and the second agent modules have substantially the same arrangement (Fig. 1 and 2; paragraph 0025).

Allowable Subject Matter

2. Claims 5 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2114

The limitation specifically deeming claims 5 and 13 allowable of “wherein the answer packet is the header having the field indicative of packet acknowledgement type,” when read within the scope of claims 1 and 8, respectively, make the novelty of the invention apparent.

3. Examiner suggests the inclusion of the following limitations into the claims:

- **definition** of “modular network device”
- signals being **physically separate** from one another
- network interface module signal communication **independent from** network device
- rebooting **upon failure/failover**

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Contino whose telephone number is (571) 272-3657. The examiner can normally be reached on Monday-Friday 7:30 am - 5:00 pm, first Fridays off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3657.

Art Unit: 2114

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PFC

November 10, 2004



SCOTT BADERMAN
PRIMARY EXAMINER